Functions of Medical Advisers in Licensing Drivers

GEORGE A. SPENDLOVE, M.D., M.P.H.

IN RECENT YEARS motor vehicle accidents have caused 40,000 deaths and more than 5 million injuries a year. Motor vehicle accidents strike all age groups, and they account for more than half the accidental deaths among persons in the age group 1 to 35 years. It has been predicted that the number of motor vehicle accident deaths may double by 1970.

Dr. Philip White, former chairman of the Arizona Committee on Medical Aspects of Traffic Accidents, suggests that if one considers the incidence of accidents as an illness, it is possible to apply certain epidemiologic principles (*1*).

> We are now witnessing attempts at modification of the agent, the automobile. Seatbelts, door latches, interiors, and accessory devices are being modified to make the automobile safer. We also see concerted efforts at altering the environment. Current evidence would suggest that alteration of the environment by the building of freeways and interstate highways has contributed to increased safety. The enigma that remains is the host, the human. The many factors which create a safe driver are not clearly defined nor understood. However, it is thought that there are conditions or states due to physical and/or mental disease which result in the impairment of the ability to operate a motor vehicle safely. The contribution that specific diseases or impairments make to traffic accidents is not precisely defined at this time. The studies that have been undertaken are at variance. As can be imagined, it is difficult to establish properly designed, scientifically valid investigations of this problem.

A California study of drivers known to have medical disabilities supports the difficulty in properly researching this problem (*2*, *3*). The study indicates that persons with diabetes, epilepsy, alcoholism, and mental illness average twice as many accidents per million miles of driving. But that particular study was limited only to drivers whose medical conditions were known to the licensing agency. What about other drivers with conditions which are not known and therefore not included in the study? Would it be scientifically sound and morally acceptable to conclude that the incidence of traffic accidents among all drivers so afflicted is twice as high as that of the average driver? Actually, it is just as valid to conclude—and at present we do conclude—that most drivers with a given illness are safe drivers. Our job is to devise ways to identify the minority of drivers who represent a danger to themselves and to others.

Identifying Hazardous Drivers

Tests for hearing, vision, and intelligence have been standardized and can be given competently by nonmedical licensing personnel. But at present we are asking these same licensing personnel, who lack a medical background, to decide whether people should be allowed to drive who have diabetes, epilepsy, physical handicaps, and other disabilities. And at present, the only medical authority the licensing personnel can consult is the physician who has had the person applying for a driver's license under his care. As experts have observed, this recourse has its drawbacks. The private physician, who has a confidential physician-patient relationship, is being asked to assume voluntarily a major decision making responsibility with no official guidelines to help him.

There may be times when physicians want to

Dr. Spendlove is the Arizona State Health Commissioner. *This article is based on a paper given at the Injury Control Programming Workshop, June 7, 1967, at Cincinnati, Ohio.*

report their concern for patients to official authorities, both for the good of the patient and the public. But in Arizona, there is no ethical or legal way for a physician to report a person he feels is a hazard on the highways. In addition, there is no way in which anonymous reports about diseases or illnesses of persons can be appraised satisfactorily.

There is, then, a basic need for establishing a practical liaison between licensing officials and physicians. Because medical progress is a continuing phenomenon, physicians must participate in the licensing function both day-to-day and on a long-term basis. Such an arrangement is necessary if advances in treatment are to be reflected in the medical standards for drivers. For example, diabetes, once a debilitating condition, can be controlled to the point that the diabetic patient can live a near-normal life. The use of drugs and sometimes surgery enables us to minimize greatly the effects of epilepsy. We have made great progress in the rehabilitation of people who have physical handicaps and other disabilities, thus enabling them to carry on reasonable activities, often including working and driving a car.

The involvement of the physician in the medical aspects of licensing drivers and in other licensing cannot be a one-time event but must become a permanent part of the licensing structure. Not having knowledgeable medical consultants available would work further hardship on the victims of sickness and disability unless new knowledge and techniques are used to help them. The physician is the logical liaison between the medical research laboratory and the medical consumer.

Medical Advisory Boards or Committees

Some States have created medical advisory committees or boards. These boards help keep drivers who are physically, mentally, or emotionally incapable of safe motor vehicle operation off the streets and highways. Such medical advisory committees also often act as watchdogs to prevent unnecessary denial or restriction of driving privileges to handicapped persons who, despite their handicaps, are safe and qualified drivers. This function is important, for in deciding who shall drive and who shall walk or be driven, there is a very important constitutional question—one involving the rights of both the driver and the population exposed to him. In our zeal to solve one pressing problem, we should not help create another.

Establishing a medical advisory board seems like a practical way to establish lines of communication between the medical profession and the licensing agency. The purely advisory capacity of the medical board or committee precludes the possibility of circumventing legislative intent because the licensing agency will still make the final decision for or against licensing.

Existing boards in various States operate in a number of ways (*4*). One commissioner of motor vehicles appoints a medical advisory board of qualified physicians with compensation provided by law, and they are paid out of funds appropriated to the motor vehicle department. The board should consist of enough physicians with various specialities to appraise adequately those drivers who have physical or mental disabilities which may interfere with their driving ability. Sometimes a driver's appearance before the board enables the board members to gain decisive first-hand insights which review by mail would not provide. On the other hand, this approach works a greater hardship on the board members because it entails their personal appearances at meetings.

In another State the committee is appointed by the State medical association, and the names of the physicians on the committee are not made public. All matters pertaining to applicants with disabilities are handled by mail. Medical reports are requested from the patient's physician, copied, and then mailed to each member of the committee with a history of the case, including the driver's record on the highways. Physicians return their recommendations to the licensing agency and the agency's decisions are based upon them.

There are advantages and disadvantages to this system. One is the lack of opportunity for the medical team approach in making an evaluation. Also, there is no meeting face-to-face with the licensee, which might help in arriving at an evaluation. One advantage is that the anonymity of the advisory board members allows more complete objectivity, because they are free

from all types of pressures. Another advantage is that a greater number of physicians might be willing to serve if they are spared the time-consuming personal appearances that other systems require. In other jurisdictions, regular meetings are held so that all available data can be considered in common, and the department's decisions are based on a majority recommendation.

In some States the State health department is responsible for making recommendations to the licensing agency. As a State health commissioner, although I view this as a workable approach, under certain circumstances I would oppose such a mandate to a State health department, especially if a legislature presents the health agency with the mandate but with no appropriation for the necessary staff and other operating costs—then the responsibility might best be placed elsewhere. Even if the State health department could, in its best judgment, employ outside medical consultants or even an advisory board, such professional services cost money. State health commissioners faced with the prospect of being mandated this responsibility should state the difficulties and requirements to legislative leaders in advance, so that all concerned will understand what is needed. Unless this step in taken the department may find itself with an important new responsibility for which no additional funds have been appropriated, and one or more of its programs will suffer.

In promoting participation by the medical profession in the driver licensing function such factors as geography, supply of medical manpower, interest, and the willingness of organized medicine to participate must be considered. In Arizona the medical advisory functions to help determine who represents a good driving risk have not yet been formulated. Early in 1965, the Arizona Committee on Medical Aspects of Traffic Accidents met for the first time. These experts have met nearly every month since then, under the initial sponsorship of the Maricopa County Safety Council, Arizona Traffic Safety Foundation, Arizona Safety Council, and Arizona State Department of Health.

The major objective of this committee was to assist driver licensing authorities in Arizona in reaching a consensus on licensing requirements, research needs, and a better understanding of the complex relationships between driving ability, health, and disease. The committee recommended to the Governor of Arizona that an exploratory medical advisory board be established to determine if a permanent board would be of value to the government, the medical profession, and to society in general. It would work with licensing officials to explore licensing requirements as they exist in Arizona and to define those areas which might need further study; for example, effects of drugs upon driver safety, more suitable initial testing techniques, and both generalized and special safety devices. Subsequently, the Federal Highway Safety Act of 1966 was passed, and the committee requested that a permanent medical advisory board be appointed in accordance with this act.

This forming of a committee to recommend another committee to explore the need for a permanent board would seem, on the surface, to be employing a tortuous route to do an urgent job. The committee on the medical aspects of traffic accidents, antedating the Federal Highway Safety Act of 1966, was composed of interested persons outside of government, and their work thus far has produced material that will prove invaluable to future legislative and executive action. Also, this slow process will, I hope, lead to the establishment of a medical advisory board that will serve as a research unit and perhaps assist in other ways not specifically covered in the Federal requirements pertaining to the responsibilities of medical advisory boards.

The Federal legislation calls for a medical advisory board or administrative unit composed of qualified personnel (*5*). This board or committee is to follow policies and procedures recommended by the State health agency with the advice of the State medical society. The function of this group is to advise the driver licensing agency on medical criteria and visual standards to be met when a license is issued or renewed. A system will also be established to provide for medical evaluation of persons whom the driver licensing agency believes have mental or physical conditions which might impair driving ability. The group will also establish, in cooperation with the State health agency, a pro-

cedure to keep the licensing agency informed of any licensed driver who is currently applying for, or receiving tax, welfare, or other benefits or exemptions for the blind or nearly blind. Finally, a medical advisory unit will establish procedures for insuring that persons discharged from mental institutions are required to, and can, obtain a certificate indicating their fitness to drive.

I am not sufficiently familiar with existing advisory units in other States to predict whether they qualify under the Federal mandate. Perhaps some of these advisory boards may require changes in the scope, nature, or procedural approach to their present responsibilities. The important change is that in the future, medical aspects of driver safety and licensing will be the responsibility of physicians.

Research is a possible and perhaps an extra function of a medical advisory committee. Whether the research is done by such a committee or by others such as private industry, universities, public health agencies or, possibly, research teams of members of all those fields, continuing research will be indispensable in reducing the deaths and injuries caused by traffic accidents.

Research and further investigation are needed to make cars safer for driver and passengers. The current systems of driver and passenger restraints, for example, are already credited with saving thousands of lives (*6*), but we must not conclude that the ultimate effectiveness of such restraints and other safety devices has been achieved.

Use of Alcohol and Drugs by Drivers

The effect of alcohol and drugs on traffic safety represents a problem that, for several reasons, is very difficult to meet effectively. One stumbling block—in controlling the drinking of intoxicating beverages by drivers—is the individual citizen's exaggerated estimate of his driving ability when under the influence of alcohol. In addition, Fox (*7a*) has suggested that the problem of persuading drivers not to drink is similar to the prevention of lung cancer by persuading persons not to smoke; the probability of a smoker having the disease is low at any given moment and the notion of invulnerability is strong.

Another difficulty in the use of alcohol by drivers is the public's refusal, or perhaps inability, to view drunkenness and drunken driving as being a crime. Alcohol and its consumption are too deeply rooted in our social customs and mores, and the excessive use of alcohol is viewed as merely regrettable rather than as criminal behavior. Ironically, it is equally difficult for the public to accept chronic alcoholism as a disease rather than a vice. In establishing moral yardsticks we probably naturally favor those that conveniently exempt the majority from censure, and we tend to show no mercy toward the smaller group who qualify as alcoholics. Perhaps the alcoholic serves as a reminder and a warning to the rest of us. This, of course, does not endear him to us.

Donald Cahalan brings up another stumbling block, simply that—"so much is not known about drinking-driving that an effective research program is necessary before an effective control program can be embarked upon. There is disagreement upon basic accident and death rates, the proportion of drivers involved in accidents who have been drinking, the effects of drinking, the characteristics of the drinking driver, the proper criteria for law enforcement, and public acceptance of laws."

Cahalan has proposed certain principles of motivation to be considered in getting public support of enforcement of drinking-driving laws (*7b*).

- Chemical tests, because they are impersonal and scientific, are likely to be better accepted than subjective testimony.
- Prima facie alcohol levels should be high enough to make sure that accusations of unjust punishment cannot be supported.
- The effectiveness of testing methods and the fair application of laws should be well demonstrated to the community.
- State legislation permitting implied consent for such testing must be enacted before it is begun.
- Punishment or remedial action should be most effective for the individual offender. Parole systems, curfews, and special training might replace automatic revocation of licenses for some offenders.
- Because of their connotations, the term "drunken driving" is unacceptable to the public

where a person has had "just a couple of highballs." Alternative terms such as "unfit to drive" should be considered for all references to legal definitions of excessive use of alcohol.

- Law and persuasion must work together, especially with such commonly used items as alcohol and motor vehicles.
- The most effective combination of enforcement and education will be one that preconditions the individual to set limits on his own drinking and driving behavior even before he takes his first drink.

Implied Consent Legislation

The States have been urged to take the necessary steps to provide implied consent authority under which any person operating a motor vehicle on a public highway will be deemed to have given his consent to a chemical test to determine the alcohol content of his blood.

During the last session of the Arizona Legislature, a bill introduced in the house would have provided that licensing a vehicle operator implied consent to such tests. This bill failed to pass. A similar bill in the senate also failed. Failure of this legislation is an indication of the conflict between the need for better highway safety on the one hand and prevailing attitudes about the use of alcohol on the other. It may reflect, too, reaction against what some consider accelerated attacks upon personal liberties. If this analysis is correct, it does us no good to observe that personal liberty should not extend to perpetrating slaughter on the nation's highways. The attitude is there, and it is this attitude that we must overcome before we can cut down the number of traffic deaths and injuries. I think it is significant that the Arizona Legislature failed to pass implied consent legislation even after the U.S. Supreme Court had affirmed the legality of the implied consent concept. It is one more indication that driving after drinking will require more than the ordinary educational campaigns to overcome, for despite cynical opinions to the contrary, legislatures largely reflect public attitudes.

In reading the U.S. Supreme Court's decision in the case of *Schmerber* v. *California* (*8*) I was particularly impressed, though not convinced, by the basic questions raised by Justices Black and Douglas in their dissenting opinion. We cannot entirely ignore, in our zeal to protect both the individual and society from the tragedy of traffic deaths and disablements, the rights of the individual.

In the case, the petitioner was convicted in Los Angeles Municipal Court of the criminal offense of driving an automobile while under the influence of intoxicating liquor. He had been arrested at a hospital while receiving treatment for injuries suffered in an accident involving the automobile that he had been driving. At the direction of a police officer, a blood sample was then taken by a physician at the hospital. Chemical analysis of this sample revealed a percent by weight of alcohol in his blood at the time of the offense which indicated intoxication, and the report of this analysis was admitted in evidence at the trial. The petitioner objected on the ground that the blood had been withdrawn despite his refusal, on the advice of counsel, to consent to the test. He contended it denied him due process of law under the 14th amendment, as well as specific guarantees of the Bill of Rights secured against the States by that amendment. He also claimed to have been denied his right to counsel under the sixth amendment, and his right not to be subjected to unreasonable searches and seizures in violation of the fourth amendment. The appellate department of the California Superior Court rejected these contentions and affirmed the conviction, which the Supreme Court later affirmed.

Mr. Justice Black disagreed with the majority opinion on the grounds that if an owner could not be required to produce his private books and papers to prove his breach of the laws, and thus to establish the forfeiture of his property, a citizen should not be compelled to make his own blood, in effect, testify against himself.

It is a compelling argument made in greater detail and with greater clarity and erudition than my oversimplified version would indicate. It exemplifies a continuing moral dilemma—quite apart from the legal aspects—in the general public health and related fields. Opponents of fluoridation accused us of practicing compulsory medicine when we added fluorides to public water supplies. Some persons have religious or other beliefs which cause them to resist immunization of their children, even though the

alternative of catching diseases makes their children a health hazard to themselves and other children.

Remember the objections to the introduction of radar in detecting and apprehending speeders on the highways? The objections injected an additional attitude—the radar system was so accurate that the speeder could no longer base his defense on human error on the part of the arresting officer. In effect, the radar system was attacked because it violated the Anglo-Saxon sense of fair play!

Since our concern is primarily to protect and to improve the health of the people, we are inclined to be impatient with these attitudes. Nevertheless, any measure taken to protect the public is likely to curtail in some degree, in some respect, the personal rights of some person or group. We are constantly faced with choosing the best of several alternatives, none of which is likely to provide a totally happy solution. Sometimes the decision is made in the courts, sometimes in the office of a private physician or by the public health department or the licensing agency.

We cannot avoid decision making, but we certainly must go as far as we can to implement the decisions. The speeding driver caught by the radar trap should receive not only a fine, which he deserves, but also help, which he may need to become a safer driver. The driver proved to be intoxicated through an analysis of his blood should not only be fined or even jailed, but he also should be helped to avoid what may be a compulsive repetition of his hazardous behavior. If today we are obliged, for the public safety, to deny a chronically ill or disabled person the right to drive a car, we must in his behalf exploit all medical and rehabilitative recourses, so that in the future, he may again enjoy the driving privilege without endangering his or others' lives.

Summary

Ways need to be devised to identify the minority of drivers within a given group (for example, among the physically disabled) who represent a danger to themselves and to others. At present there is no scientifically reliable way of determining which persons will be safe drivers.

Decisions on driver licensing are generally made by nonmedical personnel, but liaison needs to be established between licensing officials and the medical community. One method of obtaining the services of physicians as medical consultants is to create a medical advisory board or committee. Such boards or committees can help keep drivers who are physically, mentally, or emotionally incapable of safe driving off the highways. These boards can also prevent unnecessary denial of driving privileges to those handicapped persons who are safe drivers.

Control of the drinking driver is difficult because he often overestimates his ability to drive; moreover, the public refuses to view drunken driving as it does other crimes. The States have been urged to take the necessary steps to control drunken driving by providing implied consent authority in laws under which any person operating a motor vehicle on a public highway will be deemed to have given his consent to a test to determine his fitness to drive.

Constructive use of implied consent laws will curtail to some degree the personal rights of some persons or groups. The curtailment of individual rights can be justified only by the constructive use of the legal and rehabilitative tools available.

REFERENCES

(1) White, P.: Medical aspects of traffic accidents in Arizona. 1965 Report to the Committee on Medical Aspects of Traffic Accidents. Arizona State Department of Health, 1965. Mimeographed.

(2) Waller, J. A.: Chronic medical conditions and traffic safety—review of the California experience. New Eng J Med 273: 1413–1420, Dec. 23, 1965.

(3) West, I.: The impaired driver—a critical review of the facts. Calif Med 98: 271–274, May 1963.

(4) U.S. Public Health Service: How do they die? Medical-engineering data from on-scene investigations of fatal automobile accidents. Medical Advisory Boards for Driver Licensing. U.S. Government Printing Office, Washington, D.C. 1957.

(5) National Highway Safety Act of 1966, Public Law 89–564, 89th Cong., 2d sess., 80 Stat. 731–735, 5 U.S.C. 2211.

(6) Huelke, D. F., and Gikas, P. W.: Causes of deaths in automobile accidents. Office of Research Administration, University of Michigan, Ann Arbor, April 1966.

(7) Alcohol and traffic safety. Conference report. Public Health Rep 77: (*a*) p. 479; (*b*) pp. 476–477, June 1962.

(8) *Schmerber* v. *California*, 384 U.S. 757 (1966).